

(USP 6,297,351) and Smith et al. (USP 6,124,372). The former is cited for teaching the use of a fluorinated o-aminophenol polymer (PBO), but without end caps. The latter is cited for the use of thermosetting end groups into PBO's to enable crosslinking. The Action concludes that one of ordinary skill would have been motivated to add the Smith et al. end caps to the Murayama et al. PBO's to provide the benefits of low water sorption and high thermal strength. Page 2, line 19 to page 3, line 11.

2. Rejection of Claims 1-4 and 6-7

These claims are rejected as being made obvious by the combination of Sezi et al. (USP 6,153,350) and Smith et al. Again, the primary reference is cited for teaching PBO's and the secondary for teaching end caps.

3. Claims 5 and 8

These dependent claims, which relate to forming a multilayer circuit board with the cured film, are rejected based on the above Sezi et al./Smith et al. combination discussed above (which combination is acknowledged to lack a teaching of a multilayer circuit board), and Murayama et al.'s use of PBO's in making multilayer circuit boards. See, e.g., Col. 5, line 51 to Col. 6, line 9.

B. Response to Rejections

Even assuming, for the sake of discussion, that the primary references, Murayama et al. and Sezi et al., each teaches relevant fluorinated PBO's, the question is whether Smith et al. teaches the end caps recited, and whether one of ordinary skill would have or could have been motivated to add the end caps of Smith et al. to these PBO's. It is respectfully submitted, for the reasons below, that is the answer is no.

Murayama et al. claims that it has excellent heat resistance. Col. 12, lines 66-67. Sezi et al. apparently also has good heat stability, as well as very low water sorption, the latter of which appears to be an inherent quality of any PBO. See Col. 1, lines 44-52 of Sezi et al. The Examiner suggests that the end caps of Smith et al. would be added to Murayama et al. or Sezi et al. to provide lower water sorption and higher thermal strength. However, since the primary references already have these beneficial properties, as discussed above, one of ordinary skill would not be motivated to use Smith et al.'s end caps, because same expends more time, costs, efforts, etc., and possibly introduces unpredictability in the properties of the film.

C. New Claims 9-15

In Smith et al., it appears that two different types of end caps are taught, photo activated and thermal activated, and both are used together. Compare, e.g., Col. 50, lines 5-10, and Col. 54, lines 24-28 with Col. 78, lines 26-30, Col. 81, lines 52-59, Col. 82, lines 66-67 and Col. 83, lines 1-4. See also claim 1 of Smith et al.

New independent claim 9 recites that only thermally reactive groups are formed at ends of the PBO's.

III. CONCLUSION

In light of the above amendments and remarks, it is respectfully submitted that claims 1-15 are now in condition for allowance.

If there are any additional fees associated with this Response, please charge same to our Deposit Account No. 19-3935.

Finally, if there are any formal matters remaining after this Response, the undersigned would appreciate a telephone conference with the Examiner to attend to these matters.

Respectfully submitted,

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